

IN THE TRANSLATION OF THE ANNEXES OF THE
INTERNATIONAL PRELIMINARY EXAMINATION REPORT
FURNISHING THE SPECIFICATION:

MARKED UP VERSION OF THE AMENDED SPECIFICATION

(Version with marking to show changes made)

Please replace on page 16, second paragraph and third paragraph
bridging to page 17 with the following:

-- The safety device can for example exhibit a feedback resistor of such size
that a return current regulated to a fraction of the load current to be limited
upon operation with nominal voltage.

The safety device then does not switch off in case of input nominal voltage
and occurring over current; upon presence of an over voltage the feedback
current increases by the ratio of the input voltage to the input nominal
voltage $U_E:U_{ENOM}$. Now the voltage to U9-11 of the safety device or of
the electrical apparatus to be protected is switched off or, respectively,
separated. The safety device switches without further help again

automatically on or, respectively, assumes the state of the regulated down reverse current when the input voltage U_E of the safety barrier is reduced to its input nominal value U_{ENOM} , whereby an automatic adaptation to the supply conditions results.

It is thereby possible to operate the safety device at the grids, which exhibit over voltages over time periods, wherein as long as the over voltage is sustained, the connected circuit to be protected is protected against this over voltage, without that a reset is required. The employment of sensitive apparatuses in connection with the invention safety barrier is thereby possible in very unstable power grids.

Similarly certain properties of the over current or over voltage limitation can be set with the feedback resistor or with the control or regulating circuit. A corresponding evaluation electronics can thereby generate preselected characteristic curves for regulating down or characteristic curves for switching off, whereby a switching off delay can be programmed for example. An interlocking of Zener barriers and such limit circuits is also possible.

An electronics to be protected has in general a fixed current receiving region and does not require additional protection against over currents. Here the circuit with voltage detector (figure 1) is offered. A short circuit on the connection lines is possible in case of open connections between safety barrier or, respectively, protective circuit and electronics to be protected or, respectively load. Here advantageously the circuit with current sensor and over current limitation (figure 2) is employed.

A Zener diode for protecting the gate source leg is placed between gate and source of the switching and/or regulating transistor and parallel to the gate and source of the switching and/or regulating transistor, where input voltages are to be switched off in applications where such input voltages are larger than the permissible voltage between gate and source of the switching and/or regulating transistor. Alternatively a Zener diode is connected in series to the resistor R4 for reducing the gate control voltage. Depending on this elected field effect transistor, these Zener diodes protect against too large control voltages at the gate. The Zener diodes can also be an integral component of the switching and/or regulating transistor. --

Please substitute page 17, third paragraph, with the following paragraph:

-- Furthermore a bipolar transistor can be employed as a switching and/or regulating transistor instead of the field effect transistor in the safety device or, respectively, protective circuit, wherein the collector emitter leg is disposed between the input connection and the output connection of the further protective circuit - relative to figure 1 at the ~~kn~~ junction point 9 - and wherein the base is connected to the common line through a resistor for feeding of the base control voltage. --

Please substitute the first paragraph on page 20 by the following paragraphs:

-- Figure 7 voltage courses U9,11 and UE upon triggering of the safety barrier according to figure 1 at different values of the feedback resistor, Figure 8 is a view of a circuit diagram similar to Fig. 3 and additionally featuring a reset.--

Please substitute page 21, first paragraph, with the following paragraph:

-- The safety device 19 surrounded by dashed lines comprises in principle a safety fuse F1 disposed ~~in a line 8~~ between junction point 9 [--] and junction point 16, wherein the safety fuse F1 is preferably a fusible fuse, as well as a voltage limiting device referring ~~from a knot~~ to a junction point 18 of the line 8 ~~disposed between junction point 9 [--] and junction point 16~~ to the common line 12, which voltage limiting device is symbolized by the Zener diode D3; it is also possible to employ a plurality of diodes disposed in parallel or other known barriers such as Zener barriers. A current limiting device follows to the connection ~~knot~~ junction point 18 in the line 8 ~~between the junction point 9 [--] and junction point 16~~ of the first voltage limiting device, wherein the voltage limiting device is disposed in series with the safety fuse F1 and is symbolized by the resistor R6. Preferably a resistor R7 can be connected in series to the fuse F1 in front of the connection ~~knot~~ junction point in the line 8 ~~between the junction point 9 [--] and junction point 16~~ of the first voltage limiting device. This voltage current limiting device is fully surrounded with edges in figure 1 and designated with the reference character 14. --

Please substitute page 21, second paragraph, bridging to page 22 with the following paragraph:

-- A ~~further~~ second protective circuit 20 is disposed in front of the safety fuse F1, wherein the device components of the ~~further~~ second protective circuit 20 are disposed in part parallel to the input connections 8,10 and partially in series with the safety fuse F1 ~~within the line 8~~ disposed between junction point 9 [--] and junction point 16 or also disposed between junction point 10 [--] and junction point 17 and which further second protective circuit 20 represents also a voltage ~~and/or~~ or current limiting circuit. The voltage ~~and/or~~ or current limiting circuit in principle comprises a field effect transistor Q1 as a switching and/or regulating transistor, wherein the field effect transistor Q1 is operated as a longitudinal control member in the figures 1,2 or 3 as a switch and/or regulating transistor. For this purpose the field effect transistor Q1 with its source drain leg is disposed longitudinally between the input connector junction point 8 and the ~~knot~~ junction point 9 and in front of the safety fuse F1, wherein the source is connected to the input connector 8 and the drain is connected to the knot 9. The gate G of the switching transistor Q1 is